

REMARKS

Election/Restriction

The withdrawal of claims 52-66 and 70-76 is traversed for the same reasons advanced in the Amendment dated October 2, 2002. Specifically, a proper reason for the species restriction requirement was not advanced by the Examiner in the Office Action dated September 25, 2002. In this regard, Species 1, 2 and 4 identified in the Office Action dated September 25, 2002, are different method species, but each can be used to produce the claimed "semiconductor component". The problem with the species election is that different versions of a fabrication method were identified to support a species election of product claims.

The Office Action dated December 23, 2002 states that claim 63 includes a limitation not included in "other species claims of the instant invention", and that this limitation "clearly shows that the species are patentably distinct". However, elected claims 52-62 and 70-78 do not include the limitations of claim 63. Applicant is thus unable to ascertain how this limitation makes the species election clear. The issue with the species election is whether the elected claims read on the identified species. However, all of the elected claims, including those withdrawn by the Examiner, can be made using the method of Figures 2A-2F. Therefore all of the elected claims read on the elected species.

The Office Action dated December 23, 2002 also states: "However, if applicant states for the record that the apparatus claims and method claims are not patentably distinct, then the restriction requirement will be withdrawn." However, there are no method claims in the application, such that even if the above statement was

relevant to the species election issue, Applicant could not comply with this request.

The Office Action dated December 23, 2002 also states: "In claims 55, 58 the recitation "wherein the conductors are configured to electrically connect multiple components in a cluster that excludes the at least one defective component" does not belong in Species I of instant invention because the cluster does not show in the Figs 2A-2F." However, this feature is shown in Figure 5, which was not deemed a separate species in the species election requirement. In addition, this feature could be made using the elected Species I of Figures 2A-2F. Although the rules specify that all features recited in the claims must be shown in the drawings, there is no rule that states all claim features for an elected species must be shown in each drawing figure, particularly when the species categories are inconsistent with the claims.

The Office Action dated December 23, 2002 also states: "In claims 60-66 and 70-76, the recitation "a plurality of terminal contacts on the die in electrical communication with the conductors" does not belong in the Species I of instant invention because the terminal contacts do not show in the Figs. 2A-2F." However, the terminal contacts 64 are shown in Figures 7A-7B, which were not deemed a separate species in the species election requirement. In addition, the terminal contacts are placed on conductors 22P (Figure 7B) which are made using the method illustrated in the elected Species I of Figures 2A-2F.

Claim Objection

In the "Listing of Claims", mis-numbered claim 75 (second occurrence) has been renumbered 76, and claim 76 has been renumbered as 77.

Rejections Under 35 USC §102

Claims 52-54, 56, 57 and 59 have been rejected under 35 USC §102(e) as being anticipated by Cram. In response to the rejections under 35 USC §102(e), rejected independent claims 52 and 56 have been amended.

Independent claim 52 is directed to a "semiconductor component". As shown in Figures 2F and 4, the component includes "a substrate 10 comprising a plurality of tested semiconductor components including a plurality of good components 12 and at least one defective component 12D (Figure 4)". The component also includes "a plurality of conductors 22 on the substrate 10 configured to provide electrical paths to the good components 12 while electrically isolating the at least one defective component 12D."

Independent claim 56 is similar to independent claim 52 and includes the recitation of "a plurality of conductors 22 on the substrate 10 configured to provide electrical paths between the component contacts 58 (Figure 7B) on the good components 12 and to electrically isolate, the component contacts 58 (Figure 7B) on the defective component 12D."

Independent claim 56 has been amended to remove the recitation of the conductors being "laser patterned". In addition, independent claims 52 and 56 have been amended to emphasize the structure of the semiconductor component which results from the laser patterning fabrication method.

Independent claim 52 recites "a plurality of terminal contacts on the conductors". Independent claim 56 recites "a plurality of terminal contacts on the good components in electrical communication with the conductors". The terminal contacts 64 are shown in Figures 7A-7B, and are described on page 16, line 33 to page 17, line 2 of the specification.

The primary reference to Cram discloses a method for testing semiconductor components in which a semiconductor wafer 10 is provided with a plurality of dice 12. The wafer 10 is also provided with resilient contact structures 14 on each of the dice 12 (column 2, lines 62-64). The wafer 10 is initially tested to identify good dice and non functional dice (column 2, lines 64-66). The resilient contact structures 14 on the defective dice 12 are then deformed to electrically isolate the non functional dice 12 during burn-in testing (column 3, lines 5-9).

The resilient contact structure 14 in Cram are the terminal contacts for the dice (column 1, lines 56-57). However, the Cram method requires that resilient contact structures 14 be formed on each die. In addition, the Cram method requires that the resilient contact structures on the defective dice be deformed to provide electrical isolation during burn-in testing.

On the other hand, the present component (e.g., wafer) includes a substrate 10 having conductors 22 (Figure 2J) configured to provide electrical isolation for the defective components 12D (Figure 4) on the substrate 10. In the present component, the terminal contacts 64 (Figure 7B) need to be formed only on the good components, and the step of deforming the terminal contacts is eliminated. Stated differently, none of the terminal contacts in the present component need to be deformed, because the conductors, rather than deformed resilient contact structures, provide electrical isolation. The presently claimed component is thus simpler, and easier to manufacture than the Cram component (wafer 10).

Yet another distinguishing feature not taught or suggested by Cram is that the conductors can comprise a "redistribution layer" (dependent claims 54 and 57). The

term "redistribution layer" has a particular meaning to those skilled in the art. The resilient contact structures 14 in Cram are not formed from a redistribution layer. Rather, the resilient contact structures 14 in Cram are formed by direct attachment to the device bond pads (column 1, line 65). The presently claimed component includes a redistribution layer configured in a different manner (i.e., electrical isolation of defective components), and for a different purpose (i.e., burn-in testing), than prior art redistribution layers.

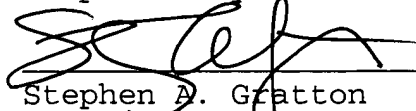
In view of these distinguishing features the rejected claims are submitted to be both novel and unobvious over Cram.

Conclusion

In view of the amendments and arguments the rejections are submitted to have been overcome, and the claims should be in a condition for allowance. Also being submitted with this Amendment is an Information Disclosure Statement. Favorable consideration and allowance of claims 52-66 and 70-78 is respectfully requested. Should any issues arise that will advance this case to allowance, the Examiner is asked to contact the undersigned by telephone.

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